REMARKS/ARGUMENTS

The Examiner rejected claims 1-43 as anticipated (35 U.S.C. §102(e)) by Elliot (U.S. Pub. No. 2004/0162137). Applicants traverse for the following reasons.

Amended claims 1, 18, and 27 concern enabling access to data in a storage medium within one of a plurality of storage cartridges capable of being mounted into an interface device and require: providing an association of at least one coding key to the plurality of storage cartridges; encrypting the coding key; and decrypting the encrypted coding key to use to decode and code data stored in the storage medium of the at least one of the storage cartridges.

Applicants made amendments to these claims discussed during the phone interview. As discussed, the Examiner indicated that such amendments would likely distinguish over the cited Elliot. Applicants submit that these claims distinguish over the cited Elliot for the following reasons.

In the Response to Arguments, the Examiner cited the unique ID of the hard drive and encryption keys that the server utilizes to encrypt the downloaded game software. (Final Office Action, pg. 8; Elliot, paras. 168, 184). The video game system decrypts the received game and stores the game in encrypted form on the hard drive 206. (Elliot, para. 168) A media engine uses an encryption processing to encrypt and decrypt data, and uses a security key that is stored in a hard disk drive in encrypted form to be later decrypted. (Elliot, paras. 189, 190).

The claims require an association of a coding key to a plurality of storage cartridges. Nowhere does the above discussed Elliot disclose this requirement. Elliot discusses how a drive ID is used to encrypt software sent to the video game system. However, this hard drive of Elliot is associated with just one drive device, and not a plurality of storage cartridges as claimed. Elliot further discusses a security code to encrypt games stored on the hard disk drive. Again, this mentions one code to store games on a single drive and does not disclose one coding key associated with a plurality of storage cartridges.

Further, nowhere does the cited Elliot anywhere disclose the claim requirements of encrypting the coding key and decrypting the encrypted coding key to use to decode and code data stored in the storage cartridges. The cited Elliot discusses a security code that is stored in the hard disk drive 206 in encrypted form to be later decrypted by the encryption processing engine 406. (Elliot, para. 189) The encryption processing engine decrypts data on the fly. (Elliot, para. 191)

Although the cited Elliot discusses a security code that is encrypted and decrypted and used by an encryption processing engine, nowhere does the cited Elliot disclose the claim requirement that the security code comprises a coding key associated with a plurality of storage cartridges that are capable of being mounted into an interface drive. Instead, the cited security code of Elliot is used by the encryption processing engine 406 that encrypts data on the video game system disk drive.

The additional sections of Elliot the Examiner cited in the Response to Arguments, including paragraphs 225, 251, 264, and 265, nowhere disclose the combination of claim requirements of a coding key that is associated with a plurality of storage cartridges and used to access data in a target storage cartridge, where the coding key is encrypted and decrypted to decode and code data in the storage cartridges.

The Examiner further cited paragraphs 5, 15-18, 80, 109, 160, 164-168, 176-178, 183, and 184 of Elliot as disclosing the requirements of these claims. (Final Office Action, pg. 2) Applicants traverse.

Paragraph 5 discusses counterfeiting of video game cartridges for video game systems. Paragraphs 15-18 discuss how an expansion device may be attached to a video game console, where the expansion device has a storage device and unique ID associated with the storage device. The expansion device requests a server to download a video game. The expansion device and server communicate using encryption keys.

Cited paragraph 18 discusses how the server utilizes the unique ID of the expansion device hard drive and encryption keys to encrypt a downloaded game. The server also identifies to a disk controller in an expansion device the partitions a particular game may access.

Cited paragraphs 168 and 184 mention that the expansion device sends the unique ID of its hard drive encrypted to the server. The server uses the unique ID to encrypt the video game. The video game system receives the game, and the game is decrypted and executed and stored in encrypted form on the hard drive.

The claims concern enabling access to storage cartridges capable of being mounted to an interface device. The cited Elliot discusses a unique ID associated with a hard disk drive in an expansion device. There is no disclosure in the cited Elliot that the interface of the hard disk drive in the expansion device may mount multiple storage cartridges. Elliot discusses game cartridges, but the cited unique ID sent to the server and used to encrypt the video game is not associated with a plurality of cartridges as claimed, but instead is the ID of the disk drive of the

expansion device attached to the game console. Thus, the cited keys and codes of Elliot are not associated with a plurality of storage cartridges.

The claims further require that the coding key is capable of being used to access data in the storage medium within the target storage cartridge with which the coding key is associated. In the cited Elliot, the unique ID of the expansion device hard disk drive is used by the server to transmit a video game to the expansion device. However, there is no disclosure in the cited Elliot that this same cited unique ID is also used to access data in the storage medium within the target storage cartridge as claimed. The cited paragraph 168 mentions that the game is stored in encrypted form on the hard drive 206. However, the cited Elliot does not disclose that the unique ID is encrypted and decrypted, and used to access data within the storage media as claimed. The cited Elliot does not disclose the use of the unique ID for encryption to store the data in storage cartridges. Instead, the cited Elliot discusses using the unique ID to encrypt the video game to communicate from the server to the expansion device.

Accordingly, for the above reasons, Applicants submit that the independent claims 1, 18, and 27 are patentable over the cited art because the cited Elliot does not disclose all the claim requirements.

Claims 2-9, 19-22, and 28-35 are patentable over the cited art because they depend from one of claims 1, 18, and 27, which are patentable over the cited art for the reasons discussed above. Moreover, the below discussed independent claims provide additional grounds of patentability over the cited art.

Claims 5 and 31 depend from claims 1 and 27 and further require that the coding key comprises a seed value that is used to generate an additional key that is used to directly decode and encode the data in the storage medium in the storage cartridge. The Examiner cited the same above cited paragraphs of Elliot as disclosing the additional requirements of these claims. (Final Office Action, pgs. 3-4) Applicants traverse.

The cited Elliot discusses how a server uses a unique ID of an expansion device disk drive to send an encrypted game to the expansion device. Nowhere does the cited Elliot disclose that the unique ID comprises a seed value used to generate an additional key. Applicants request that the Examiner specifically identify where Elliot discloses that the unique ID associated with the expansion device disk drive may be used as a seed value used to generate an additional key used to directly decode and encode data in the cartridge.

Accordingly, claims 5 and 31 provide additional grounds of patentability over the cited art.

Claims 8 and 34 depend from claims 6 and 32 and provide details of how the coding key is encrypted with a first key and that another key used to decrypt a second key capable of decrypting the coding key encrypted with the first key. The Examiner cited the same above cited paragraphs of Elliot as disclosing the additional requirements of these claims. (Final Office Action, pg. 4) Applicants traverse.

The cited Elliot mentions that the unique ID may be encrypted and passed to the server. However, nowhere does the cited Elliot anywhere disclose encrypting and transmitting a second key used to decrypt the unique ID. Further, Elliot also mentions the security code that is decrypted and encrypted. However, nowhere does the cited Elliot disclose the use of the second, third and fourth keys to decrypt the coding key and data as claimed.

Accordingly, claims 8 and 34 provide additional grounds of patentability over the cited art.

Claims 9 and 35 depend from claims 6 and 32 and provide details of how the coding key is encrypted with a first key, then decrypted by a second key, and then encrypted with a fourth key. The Examiner cited the same above cited paragraphs of Elliot as disclosing the additional requirements of these claims. (Final Office Action, pg. 5) Applicants traverse.

The cited Elliot mentions that the unique ID may be encrypted and sent to the server. However, nowhere does the cited Elliot anywhere disclose encrypting the unique ID with a first key, decrypting with a second and then encrypting with a third key that may be decrypted by a fourth key. Further, Elliot also mentions the security code that is decrypted and encrypted in a hard disk drive. However, nowhere does the cited Elliot disclose the use of the second, third and fourth keys to decrypt the coding key and data as claimed.

Accordingly, claims 9 and 35 provide additional grounds of patentability over the cited art.

Independent claims 10, 23, and 36 concern an interface device for accessing data in a removable storage cartridge including a storage medium coupled to the interface device and require: receiving an encrypted coding key from a host system; decrypting the encrypted coding key; using the coding key to encode data to write to the storage medium; and using the coding key to decode data written to the storage medium.

The Examiner cited the same above cited paragraphs of Elliot as disclosing the additional requirements of these claims. (Final Office Action, pg. 5) Applicants traverse.

As discussed, the cited Elliot discusses how the expansion device sends an encrypted unique ID associated with a hard drive to the server, and the server encrypts and sends a video game back. Nowhere does the cited Elliot disclose that an interface device to which the removable cartridge may be coupled receives an encrypted coding key from a host system, decrypts the key and uses to encrypt and decrypt data in a removable storage cartridge. Instead, the cited Elliot discusses the server decrypting an encrypted unique ID to use to encrypt a video game. However, the Examiner has not cited any part of Elliot that discloses the claim requirements that the decrypted unique ID is used by an interface device to which a removable cartridge is coupled to encode and decode data in the storage medium of the coupled storage cartridge.

Moreover, the cited Elliot concerns a unique ID that is used to encrypt data for a hard disk drive, not a removable storage cartridge as claimed.

As discussed, Elliot also discusses separately a security code that is stored in a hard disk drive and encrypted and later decrypted for use by the encryption processing engine. (Elliot, para. 189). However, nowhere does Elliot disclose that this encrypted coding key is received from a host system and used to encode and decode data in a removable cartridge storage medium as claimed.

Accordingly, for the above reasons, Applicants submit that the amended independent claims 10, 23, and 36 are patentable over the cited art because the cited Elliot does not disclose all the claim requirements.

Claims 11-17, 24-26, and 37-43 are patentable over the cited art because they depend from claims 10, 23, and 36, which are patentable over the cited art for the reasons discussed above. Moreover, the dependent claims provide additional details about how the coding key may be encrypted and decrypted. The cited Elliot does not disclose the additional requirements of the dependent claims with respect to how the server and expansion device communicate the unique ID that the server uses to encrypt the video game being sent. Accordingly, these dependent claims provide further grounds of patentability over the cited art.

For instance, claims 15, 26, and 41 depend from claims 12, 24, and 38 and further require storing the coding key encrypted with the first key within the storage cartridge; receiving an input/output (I/O) request directed to the storage cartridge; and accessing the encrypted coding

key from the storage cartridge, wherein the accessed coding key is decrypted using the second key, and wherein the decrypted coding key is used to encode and decode data to execute the I/O request to the storage cartridge.

Nowhere does the cited Elliot anywhere disclose that in response to an I/O request, the encrypted coding key is accessed from the storage cartridge and decrypted using a second key, and using the decrypted coding key to execute the I/O request.

As discussed, the cited Elliot discusses how the expansion device sends an encrypted unique ID associated with a hard drive to the server, and the server encrypts and sends a video game back. Further, as discussed, the cited Elliot also discusses a security code that is stored in a hard disk drive and encrypted and later decrypted for use by the encryption processing engine. (Elliot, para. 189). However, nowhere does Elliot disclose that this encrypted coding key is received from a host system and accessed form the storage key and decrypted using a second key in order to use the decrypted coding key to execute the I/O request.

Conclusion

For all the above reasons, Applicant submits that the pending claims 1-43 are patentable over the art of record. Applicants have not added any claims. Nonetheless, should any additional fees be required, please charge Deposit Account No. 09-0466.

The attorney of record invites the Examiner to contact him at (310) 553-7977 if the Examiner believes such contact would advance the prosecution of the case.

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